

CLAIM AMENDMENTS

Please amend the claims by canceling claims 19-22, without prejudice, as indicated on the following listing of all the claims in the present application after this Amendment:

1. – 4. (canceled)

5. (previously presented) An improved infrared transceiver system comprising:
a first sensor for detecting infrared signals incident thereon and converting said signals to an electrical current signal;
a gain controller for amplifying said current signals;
a voltage converter for converting said current signals into voltage signals; and
a staged current amplifier in circuit between said gain controller and said voltage converter, said staged current amplifier comprised of at least two amplification stages, each of said stages amplifying said current signals, wherein said gain controller comprises a current mirror in operative connection with said staged current amplifier and further wherein said staged current amplifier comprises:
a first transistor, said first transistor comprising a first drain and a first gate;
a second transistor, said second transistor comprising a second source and a second drain, said second source being in circuit with said first drain;
a third transistor, said third transistor comprising a third gate and a third source, said third gate being in circuit with said second drain; and

a fourth transistor, said fourth transistor comprising a fourth drain and a fourth gate, said fourth drain in circuit with said fourth gate and said first gate.

6. (original) The system of Claim 5, wherein said current mirror is in circuit with said second drain and said third gate.

7. (original) The system of Claim 5, further comprising an output terminal, said output terminal being in circuit with said third source and said fourth drain.

8. (previously presented) The system of Claim 7, wherein each of said transistors comprises a bias voltage, and wherein said bias voltage is dynamically adjustable in order to operate each of said transistors in a weak inversion range.

9. – 13. (canceled)

14. (previously presented) An improved wireless signal receiver system comprising:
a first sensor for detecting wireless signals incident thereon and converting said signals to an electrical current signal;

a gain controller for amplifying said current signals; and

a voltage converter for converting said current signals into voltage signals;

wherein said gain controller further comprises a staged current amplifier operating in the weak inversion range, and a current mirror in operative connection with said current amplifier; and wherein said current amplifier comprises:

a first transistor, said first transistor comprising a first drain and a first gate;
a second transistor, said second transistor comprising a second source and a second drain,
said second source being in circuit with said first drain;
a third transistor, said third transistor comprising a third gate and a third source, said third
gate being in circuit with said second drain; and
a fourth transistor, said fourth transistor comprising a fourth drain and a fourth gate, said
fourth drain in circuit with said fourth gate and said first gate.

15. (original) The system of Claim 14, wherein said current mirror is in circuit
with said second drain and said third gate.

16. (original) The system of Claim 14, further comprising an output terminal,
said output terminal being in circuit with said third source and said fourth drain.

17. (previously presented) The system of Claim 16, wherein each of said transistors
comprises a bias voltage, and wherein said bias voltage is dynamically adjustable in order to
operate each of said transistors in a weak inversion range.

18.-22. (canceled)